CLAIMS

1. A reciprocating saw comprising:

a cutting arrangement capable of performing reciprocating motion;

a rotatable drive shaft with a drive shaft axis, wherein the drive shaft comprises a first eccentric;

a timing actuator capable of performing reciprocating motion, wherein the timing actuator is associated with the cutting arrangement so that, in use, the reciprocating motion of the timing actuator is transmitted to the cutting arrangement; and

a counterweight capable of performing reciprocating motion, wherein the counterweight is coupled to the first eccentric so that, in use, rotation of the first eccentric drives the reciprocating motion of the counterweight, wherein the reciprocating motion of the counterweight is out of phase with the reciprocating motion of the cutting arrangement, characterised in that the drive shaft comprises a second eccentric, wherein the second eccentric is associated with the timing actuator so that, in use, the rotation of the second eccentric controls the reciprocating motion of the timing actuator.

2. A reciprocating saw as claimed in claim 1, wherein the reciprocating motion of the timing actuator is superimposed upon the reciprocating motion of the cutting arrangement.

3. A reciprocating saw as claimed in claim 1, wherein the first eccentric is a first cam arranged eccentrically with respect to the drive shaft axis, and wherein the first cam is yoked by an aperture in the counterweight.

4. A reciprocating saw as claimed in claim 1, wherein the drive shaft comprises a driven gear and the second eccentric is located between the driven gear and the counterweight.

5. A reciprocating saw as claimed in claim 1, wherein the second eccentric is a second cam arranged eccentrically with respect to the drive shaft axis.

6. A reciprocating saw as claimed in claim 5, wherein the timing actuator comprises a first part and a second part, wherein the first part engages the second cam so that, in use, the second cam drives the reciprocating motion of the timing actuator, and wherein the second part is associated with the cutting arrangement so that, in use, the reciprocating motion of the timing actuator is transmitted to the cutting arrangement.

7. A reciprocating saw as claimed in claim 6, wherein the first part is coupled to the second part.

8. A reciprocating saw as claimed in claim 6, wherein the first part is coupled to the second part by at least one intermediate part.

9. A reciprocating saw as claimed in claim 6, wherein the first part is a cam follower contacting the second cam.

10. A reciprocating saw as claimed in claim 9, wherein the cam follower is pivotally mounted on a cam follower axis for oscillating motion.

11. A reciprocating saw as claimed in claim 6, wherein the second part is a bearing arranged to bear against the cutting arrangement.

12. A reciprocating saw as claimed in claim 11, wherein the bearing is pivotally mounted on a bearing support axis for oscillating motion.

13. A reciprocating saw as claimed in claim 11, wherein the bearing comprises a wheel rotatably mounted on the bearing.

14. A reciprocating saw as claimed in claim 1, wherein the cutting arrangement comprises a shaft and a saw blade clamped to the shaft.

15. A reciprocating saw as claimed in claim 1, wherein the reciprocating motion of the counterweight is 180° out of phase with the reciprocating motion of the cutting arrangement.

16. A reciprocating saw as claimed in claim 1, wherein the reciprocating saw is a jigsaw supported by a shoe.